

# METHODS AND APPARATUS FOR IMAGE CAPTURE AND DECODING IN A CENTRALIZED PROCESSING UNIT

## ABSTRACT

An improved method and device for capturing image data benefits from having a single central processor execute the operating system, and the image capture, decode and processing programs. A method for capturing of image data comprises transmitting image data from an imager, assembling the image data, assigning a memory address to the assembled image data and transferring the assembled image data into system memory. This method is capable of central processing whereby the capturing of image data is executed via the main processor without having to invoke a dedicated processor or incorporate external components, such as additional PCBs, external digital signal processing or external data storage. Additionally, an imaging device comprises an image builder module that receives image data from the imager bus and assembles the data, and a transfer controller that initiates the image builder module and controls the transfer of image data into and out of memory.

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